

ABSTRACT

Disclosed are a method and apparatus for inspecting a wafer for electrical defects. A first electron beam is irradiated onto an area of the wafer including an inspection region to charge the area. A second electron beam is irradiated onto the inspection region to inspect the inspection region after focusing the second electron beam on the inspection region. A third electron beam is irradiated onto the area to discharge charges accumulated on the area. Therefore, the electrical defect of the wafer can be precisely detected with increased voltage contrasts for distinguishing the electrical defect. This method and apparatus have improved detection sensitivity and detection reliability over conventional methods.